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March 5, 1999

VIA HAND DELIVERY

Magalie Roman Salas, Esquire
Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Room TW-B204
Washington, D.C. 20554

Re: RM-9418

Dear Ms. Salas:

On behalf of the Digital Microwave Corporation, we are filing an original and nine (9) copies of its Comments on the above-referenced petition for rulemaking filed by the Fixed Point-to-Point Section, Wireless Communications Division of The Telecommunications Industry Association.

Please communicate with us if additional information is required.

Very truly yours,

FLETCHER, HEALD & HILDRETH, PLC


George Petrutsas
Counsel for

Digital Microwave Corporation

GP:cej
Enclosures
cc: See Certificate of Service

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

ORIGINAL

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of)
)
Amendment of Parts 25, 74, 78, 90,)
and 101 of the Commission's Rules)
to Facilitate Fixed Point-to-Point)
Terrestrial Microwave Radio Service)
Licensee Use of the 23 GHz and)
10 GHz Bands and to Eliminate)
Certain Inconsistencies in Such Rules)

RM No. 9418

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MAR 5 1999
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: The Commission

COMMENTS OF
DIGITAL MICROWAVE CORPORATION

Digital Microwave Corporation ("DMC"),¹ by counsel, submits these comments in support of the above-referenced petition, filed on March 6, 1998, by the Fixed Point-to-Point Section, Wireless Communications Division of the Telecommunications Industry Association ("TIA" or "Fixed Section"). DMC fully supports the petition. The proposals in that petition would restructure and would update the technical regulations governing the 23 GHz band and would promote the more efficient and effective use of the frequencies in that band. The proposals would also facilitate access to those frequencies by allowing the use of frequencies in the entire band by common carrier as well as by private microwave system applicants and by permitting conditional licensing.

¹A leading global supplier of short-haul, low-to medium-capacity digital microwave radios, Digital Microwave provides transmission solutions for communications networks serving cellular, personal communications, wireless local loop, private, and telco/PTT applications. The company's corporate headquarters is located in San Jose, California.

Rulemaking action looking towards adoption of TIA's proposals would be in the public interest. DMC urges the Commission to grant the petition and to institute a rulemaking proceeding as soon as possible proposing to adopt of the proposals therein.

Comments

In summary, TIA's primary proposals are:

Rechannelize the 21.2-23.6 GHz band into 50, 40, 30, 20, 10, 5, and 2.5 MHz channels.

Tighten the frequency tolerance for the 23 GHz band to 0.001%.

Specify spectrum efficiency of one bit-per-second per Hertz ("1 bps/Hz") for the 23 GHz band.

Permit common carrier and private operational fixed users to share the entire 23 GHz band.

Designate 200 MHz of spectrum in the 23 GHz band for low power, limited coverage systems.

Change the antenna standards to allow: (i) 18 inch diameter antennas under the category A standard and one foot diameter antennas under the category B standard in the 23 GHz band; and (ii) two foot diameter antennas in the 10 GHz Band.

Amend Section 101.31(e) of the Commission's Rules to authorize conditional licensing in the 23 GHz band, that is to permit operation of a proposed microwave system while the application for that system is being processed by the Commission.²

²TIA proposes other changes to the Commission's Rules, such as minor corrections to the table of assignable bandwidths in Part 101, Subparts C and J; rules to permit digital modulation in the 6.875-7.125 and 12.7-13.25 GHz bands in Part 74, and rules to permit automatic transmitter power control in the Television Broadcast Auxiliary Service. For the reasons given in the petition, DMC supports these proposals as well and recommends their adoption.

The restructure of the 23 GHz band is timely and proper. As the Fixed Section points out, this band, unlike the lower microwave bands, is not formally channelized. The petition proposes a reasonable channelization plan under which specific channels of 50, 40, 30, 20, 10, 5, and 2.5 MHz bandwidths would be set out in the Commission's Rules. Such a choice of assignable bandwidths would accommodate a variety of bandwidth requirements and would provide the flexibility needed in the assignment and use of the frequencies in the band. For equipment manufacturers, a standardized channel plan would facilitate the design and manufacture of a variety of equipment models addressing the wide variety of needs of the market more effectively and economically. In sum, DMC believes that the proposed channeling plan is reasonable and should be adopted.

The proposal to tighten tolerance to 0.001 percent for all systems in the 23 GHz should be adopted as well. The proposed tighter tolerance is fully consistent with the state of the art and, as TIA points out, it is necessary if the proposed channelization plan is to be fully implemented.

DMC also agrees with TIA that the 1 bps/Hz efficiency standard now required in practically all microwave bands below 19.7 GHz would be appropriate for the 23 GHz band and should be required for digital systems. This would ensure that all proposed channels would be fully and efficiently utilized.³

³DMC also supports TIA's proposal under which non-conforming existing systems would be grandfathered indefinitely, and the proposal to allow an 18-month transition period after the proposed rules become effective for the manufacturers to meet the new technical standards. The transition period proposed is necessary and should be provided.

DMC also supports the proposal to allow the use of 18 inch diameter antennas where the category A standard would be required and a 12 inch diameter antenna where category B standard would apply. As TIA points out, the 23 GHz will be increasingly used in urban areas to interconnect cell sites, and in campus-type systems, where the antennas would more than likely be mounted on rooftops, monopoles, and other structure that cannot support large microwave dishes. Large microwave dishes also raise aesthetic and other issues and engender oppositions. The smaller antennas proposed by TIA would make them more acceptable and practical to use and yet they would provide sufficient path reliability. Accordingly, DMC recommends adoption of TIA's proposal to change the minimum antenna gain in the 23 GHz band to 34 dBi; the maximum bandwidth to 3.0 degrees, to retain the same front-to-back ratio as the current category A and category B standards, and to reduce to sidelobe suppression requirements as appropriate.

The proposal to eliminate the priority access to one portion of the 23 GHz band by common carrier applicants and to another by private applicants is also reasonable and should be adopted. In light of the consolidation of the common carrier and the private microwave regulations into Part 101, the current practice for licensing common carrier systems in the lower portion of the 23 GHz band and private systems in the higher portion of that band is no longer reasonable and should be discontinued.

DMC also supports the proposal to designate 200 MHz of spectrum in the 23 GHz band for low power limited coverage systems. Such systems, now operated under the provisions of Section 101.147(s), have been useful for many low power, low capacity operations and should continue to be authorized as proposed by TIA. The

proposal should, therefore, be adopted along with the changes to Section 101.147(s) TIA has proposed.

Finally, DMC wishes to highlight and to express its strong support for TIA's proposal for conditional licensing in the 23 GHz band. Conditional operation is not permitted in that band, except for low power systems operated pursuant to Section 101.147(s) of the Commission's Rules, primarily because the band is shared with the federal government. TIA proposes direct coordination of 23 GHz applications with federal agencies and the designation of specific geographic exclusion areas (where sensitive government systems using 23 GHz frequencies operate) as the means for accommodating interim operations in that band under conditional licenses. Direct coordination with the federal agencies would certainly reduce delays, but such procedure would require the cooperation of the federal agencies involved. If that cooperation would be forthcoming, DMC would support the proposal. Otherwise, DMC would recommend, as an alternative, adoption by the Commission of procedures whereby the relevant technical data of 23 GHz applications are transmitted electronically to NTIA by the Commission as soon as an application is filed and that data are then passed by NTIA to the various interested federal agencies, also electronically and without delay, with the objective of having a response no later than within thirty days. If no objections are raised within such a pre-designated period, the applicant would be notified and would be advised that interim conditional operation of the proposed system may begin.

The delays in processing microwave applications for 23 GHz frequencies are unreasonable and adversely affect the public interest. Deployment of the new

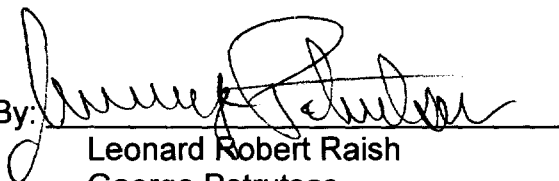
competitive wireless services the Commission has authorized in recent years is frequently delayed. DMC respectfully urges the Commission to take all reasonable actions necessary to shorten its licensing process. Conditional licensing would help. However, DMC believes that the Commission must address the basic problem and devote the resources needed to deal with it adequately.

CONCLUSION

The Commission's regulations governing the 23 GHz band be brought up to date so that the frequencies in that band can be assigned promptly and are used efficiently. TIA's Fixed Section has proposed a comprehensive plan for restructuring the 23 GHz band. DMC urges the Commission to grant TIA's petition and proceed to rulemaking as soon as possible.

Respectfully submitted

DIGITAL MICROWAVE CORPORATION

By: 
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Its Attorneys

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Date: March 5 1999

CERTIFICATE OF SERVICE

I, Chellestine Johnson, a secretary in the law firm of Fletcher, Heald & Hildreth, P.L.C. do hereby certify that true copies of the foregoing Comments were sent this 5th day of March, 1999, by first-class United States mail, postage prepaid, to the following:

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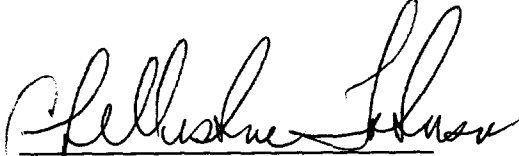
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